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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/826,575	04/05/2001	Charles E. Loomis	HO-P02054US1	3001

7590 08/30/2002  
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EXAMINER

CYGAN, MICHAEL T

ART UNIT	PAPER NUMBER
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2856

DATE MAILED: 08/30/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/826,575

Applicant(s)

LOOMIS ET AL.

Examiner

Michael Cygan

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-31 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-31 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 05 April 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4.
- 4) ☐ Interview Summary (PTO-413) Paper No(s) \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Drawings***

1. New formal drawings are required in this application because the numerals are indistinct (e.g., 11 and 13). Applicant is advised to employ the services of a competent patent draftsman outside the Office, as the Patent and Trademark Office no longer prepares new drawings. The corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

### ***Specification***

2. The disclosure is objected to because of the following informalities: In the description of Figure 2 at line 26 of page 3, the cross-section is written to be taken at line "AA", whereas the Figures show it to be taken at line "2-2".  
Appropriate correction is required.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-14 and 16-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over the OSHA Irritant Smoke Protocol (OSHA), in view of U. S. Patent Number 5,073,347 (Garren). OSHA discloses a testing apparatus comprising a bulb (i.e., a pump) and a container portion (smoke tubes) having frangible ends, an outlet, and containing a chemical substance such as stannic chloride ( $\text{SnCl}_4$ ) producing an "irritant smoke" upon exposure to air. The apparatus produces smoke used to check for leaks in equipment such as face seals, the smoke carrying an irritating scent noticeable by the equipment wearer. OSHA further discloses providing such an apparatus, storing a chemical having a selected scent in the apparatus prior to use, breaking an end portion, causing a chemical reaction between the chemical and air, and operating a bulb to start a smoke test, and directing the smoke outward of the container and towards equipment such as a face seal. The smoke is visually observed as the test operator visually directs the smoke in three circumferential passes at a specified distance from the face seal. See page 227. OSHA teaches the claimed invention except for an integral tube-pump design and the method of forming that design. Garren teaches that it is known to assemble and use plastic tube-pump integral pipettes in place of glass/rubber bulb pipettes (column 1). The plastic may be low-density polyethelene, or may be two different materials for bulb and tube (column 9, lines 41-65), and can be formed through lamination (column 10, lines 5-8) to form a substantially permanent structure. It would have been obvious to one

having ordinary skill in the art at the time the invention was made to form an integral plastic pipette and use an integral plastic pipette as taught by Garren in place of the two piece pipette disclosed by OSHA, since this would allow operation of the protocol without danger of untimely glass breakage (see Garren column 1, lines 45-48), contamination (see Garren column 1, lines 48-51), or human injury (see Garren column 1, lines 51-53 as well as OSHA page 277 lines 6-10).

4. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over OSHA in view of Rodrigues (US 3,938,392). OSHA discloses a testing apparatus comprising a bulb (i.e., a pump) and a container portion (smoke tubes) having frangible ends and containing a chemical substance producing an "irritant smoke" upon exposure to air. The apparatus produces smoke used to check for leaks in equipment such as face seals. See page 227. OSHA teaches the claimed invention except for an integral tube-pump design having a finger hole in the pump area. Rodrigues teaches the provision of a finger hole in a flexible plastic pipette bulb (Figure 1) which is used as an improvement over the known glass/rubber two piece bulb (column 1, lines 5-30). It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide a finger hole as taught by Rodrigues in the invention taught by OSHA in view of Gerren, since this would allow operation of the protocol without danger of untimely glass breakage (see

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Rodrigues column 1, lines 11-12) or human injury (see OSHA page 277 lines 6-10) caused by operation of a two piece system having a class component.

***Conclusion***

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. St. Amand (US 4,589,835) discloses that plastic pipettes are used in place of prior art glass/rubber pipettes. Testing tubes are disclosed by Aryamkin (RU 2110789 C1), Huneke (US 4,272,479), and Rosiere (US 4,012,203). Use of a smoke generator to check equipment is disclosed by Abiru (JP 63131041 A).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael Cygan whose telephone number is 703-305-0846. The examiner can normally be reached on 8:30-6 M-Th, alternate Fridays.

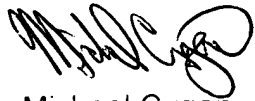
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hezron Williams can be reached on 703-305-4705. The fax phone numbers for the organization where this application or proceeding is assigned are 703-308-7722 for regular communications and 703-308-7722 for After Final communications.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-306-3431.

A handwritten signature in black ink, appearing to read 'Michael Cygan', with a stylized flourish at the end.

Michael Cygan  
August 28, 2002